

## TWO NEW SPECIES OF THE GENUS MELANGYNA VERRALL (DIPTERA, SYRPHIDAE) FROM CHINA, WITH A KEY TO KNOWN SPECIES OF CHINA

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**Abstract** *Melangyna evittata* sp. nov. and *Melangyna qinlingensis* sp. nov. are described and illustrated. A key to known species of *Melangyna* in China is provided.

**Key words** Diptera, Syrphidae, *Melangyna*, new species, China.

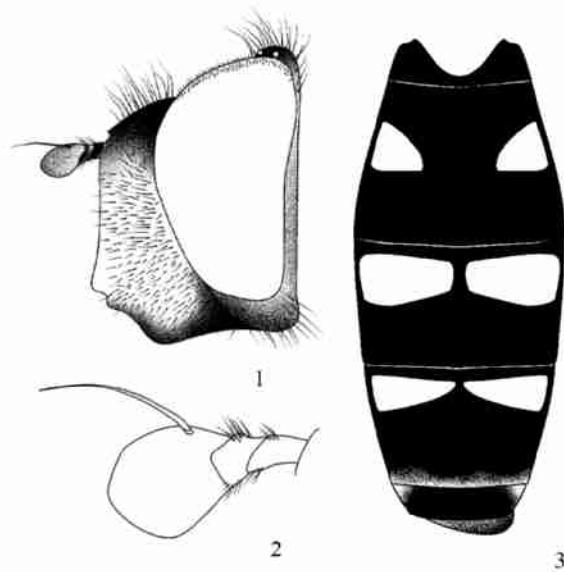
Two new species of the genus *Melangyna* are described and illustrated, and a key to known species of China is given. The type specimens are deposited in Bioresources Key Laboratory of Shaanxi Province, Shaanxi University of Technology, Shaanxi Province.

### Key to known species of *Melangyna* of China

- 1 Hind coxae with a tuft of hairs at posteroventral apical angle; eyes hairy or bare; face usually with black median stripe or entirely black, rarely entirely yellow (subgenus *Melangyna*) ..... 2
- 2 Hind coxae without a tuft of hairs at posteroventral apical angle; eyes bare; face yellow, without black median stripe or only facial prominence dark brown (subgenus *Meligranna*) ..... 9
- 3 Eyes conspicuously hairy ..... 3
- 4 Eyes bare or with sparse white short hairs on upper part ..... 4
- 5 Face with black median stripe extending to base of antennae; scutellum black pilose ..... *Melangyna lasiophthalma*  
Face without black median stripe; scutellum mostly yellow pilose except with a few long black hairs on post part ..... ..... *Melangyna evittata* sp. nov.
- 6 Face shiny black in male, abdomen with two pairs of yellow spots, the first pair on tergite 3 small, oblique; face in female yellow, with a broad black median stripe extending to base of antennae; abdomen with three pairs of reddish spots ..... *Melangyna harbifrons*  
Face yellow with black median stripe, abdomen with three pairs of spots in both sexes ..... 5
- 7 Facial median stripe not extending to base of antennae ..... 6
- 8 Facial median stripe extending to base of antennae ..... 7
- 9 Scutellum mostly yellow pilose, only with a few black long hairs posteriorly; abdomen with three pairs of yellow spots, the first pair on tergite 2 extending almost to lateral margins ..... *Melangyna labiatarum*  
Scutellum mostly light brown pilose, yellow hairs only at base; abdomen with three pairs of yellow spots, all of which not extending to lateral margins; the first pair triangular, oblique ..... *Melangyna hwahgi*
- 10 Facial median stripe broader, occupying at least half of face in width ..... 8
- 11 Facial median stripe narrower than half width of face ..... *Melangyna umbellatarum*
- 12 All three pairs of yellow spots on abdomen extending over lateral margins, tergite 2 with oblique spots, of which inner ends circularly angular; tergite 4 with yellow posterior margin ..... *Melangyna heilongjiangensis*  
Abdomen with yellow spots on tergite 2 not extending to lateral margins, but spots on tergites 3 and 4 to lateral margins; tergites 4 and 5 with

- yellow posterior margins ..... *Melangyna qinlingensis* sp. nov.
- 13 Tergite 2 with triangular yellow spots laterally, tergites 3 and 4 with yellow bands at anterior half ..... *Melangyna cincta*  
Abdomen with three pairs of yellow spots not extending to lateral margins; spots on tergite 2 almost triangular, locating laterally almost at middle; spots on tergites 3 and 4 oblong, nearly to anterior margins of tergites ..... *Melangyna guttata*

***Melangyna evittata* sp. nov.** (Figs. 1-3)



Figs. 1-3. *Melangyna evittata* sp. nov., ♂. 1. Head in lateral view. 2. Antenna. 3. Abdomen in dorsal view.

**Male.** Eyes densely light haired. Vertex black, covered with black hairs, ocellar triangle equilateral. Occiput black, decorated with yellowish white pruinosity and yellow hairs, and a row of black hairs dorsally along eye margins bent forwards. Frons black, clothed with black hairs and yellowish white pruinosity at base near eye margins. Lunule dull yellow anteriorly. Face dull

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brown, black pilose, yellow pollinose, but bare, shiny medially, with narrow black stripes laterally, being joined with black gena. Medial facial prominence asymmetric in profile, small, obtusely rounded at lower end. Gena intermixed with black and yellow hairs. Antennae black, basal 2 segments with black hairs at apical margins, first flagellomere brown, nearly rounded. Arista brown, bare.

Scutum black with postalar callus dust colored, decorated with brownish yellow hairs. Scutellum dull yellow, black at base anteriorly and laterally, with long brownish yellow hairs, intermixed with a few black hairs posteriorly. Subscutellar fringes brownish yellow, dense. Mesopleuron black, brown yellow pilose, long hairs on anepisternum posterodorsally brown black. Upper and lower hairy patches on katepisternum narrowly joined posteriorly. Metasternum bare. A tuft of long black hairs present at posteroventral apical angle of hind coxae. Legs dull brown, but black on slightly more than basal 1/3 of fore and middle femora, and nearly basal half of hind femora, with tarsi more dark. Hairs of legs brown yellow, long hairs on fore and middle femora black posteriorly, hind femora mostly black haired. Wings hyaline, wing membrane entirely decorated with microtrichia. Pterostigma and halter black.

Abdomen narrow, parallel laterally, unmargined. Abdominal tergites black, with lateral margins smoothly curved downwards. Abdominal tergite 2 with a pair of small triangular yellow spots nearly at middle portion laterally, with inner ends separated broadly. Rectangular yellow spots on basal part of tergite 3 laterally with anterior margin straight, outer ends not extended to lateral margin, broader than inner ends, and inner ends separated narrowly. Tergite 4 marked narrowly triangular yellow spots at base laterally, with anterior margin straight, outer ends not extended to lateral margins, posterior margin oblique; tergite 4 with narrow brown yellow margin posteriorly. Tergite 5 with small yellow spots on anterior corners laterally. Abdomen black pilose but tergite 1, tergite 2 (except medial portion posteriorly) yellow pilose. Venter black brown, sternites with yellow posterior margins, the broadest yellow margin on sternite 2, sternite 3 with nearly rounded light spots at base laterally; venter mostly light pilose except black pilose posteriorly.

Female: unknown.

Body length: ♂12 mm; wing length: ♂10 mm.

Holotype ♂, 5 May 2004, Taxin Forestry Park (33°30' N, 109°10' E; alt. 1500 m), Chang'an County, Shaanxi Province, collected by HUO Ke Ke.

This species is similar to *Melangyna dufjai* Violovitsh, but differs from the latter in face dull brown and without facial dark stripe, all tibiae brown, without dark rings subapically.

**Etymology.** The specific epithet is derived from the

Latin *e* (*x*) - (*ur*) and *vittatus* (*striped*), referring to the characters of face.

**Discussion.** The new species coincided with the characters of subgenus *Meligramma* because of the absence of the facial dark stripe; and it also accorded with the characters of subgenus *Mdangyna* because of the presence of the tuft of black hairs at posteroventral apical angle of hind coxae, so its taxonomical status will have to be studied more.

### *Melangyna qinlingensis* sp. nov. (Figs. 4-11)

**Male.** Eyes bare. Vertex and ocellar triangle black, clothed with long black hairs. Frons black, with hairs in ground color, pollinose near eye margins laterally. Face slightly prominent at lower part, facial tubercle asymmetry in profile, with lower part narrowed. Face dark yellow except broad black median stripe extending from between antennae to black oral margin, black lateral stripes below eyes joined with black gena. Face and gena clothed with black hairs. Face yellow pollinose laterally except facial tubercle bare. Antennae black, first flagellomere nearly rounded. Arista black, pubescent.

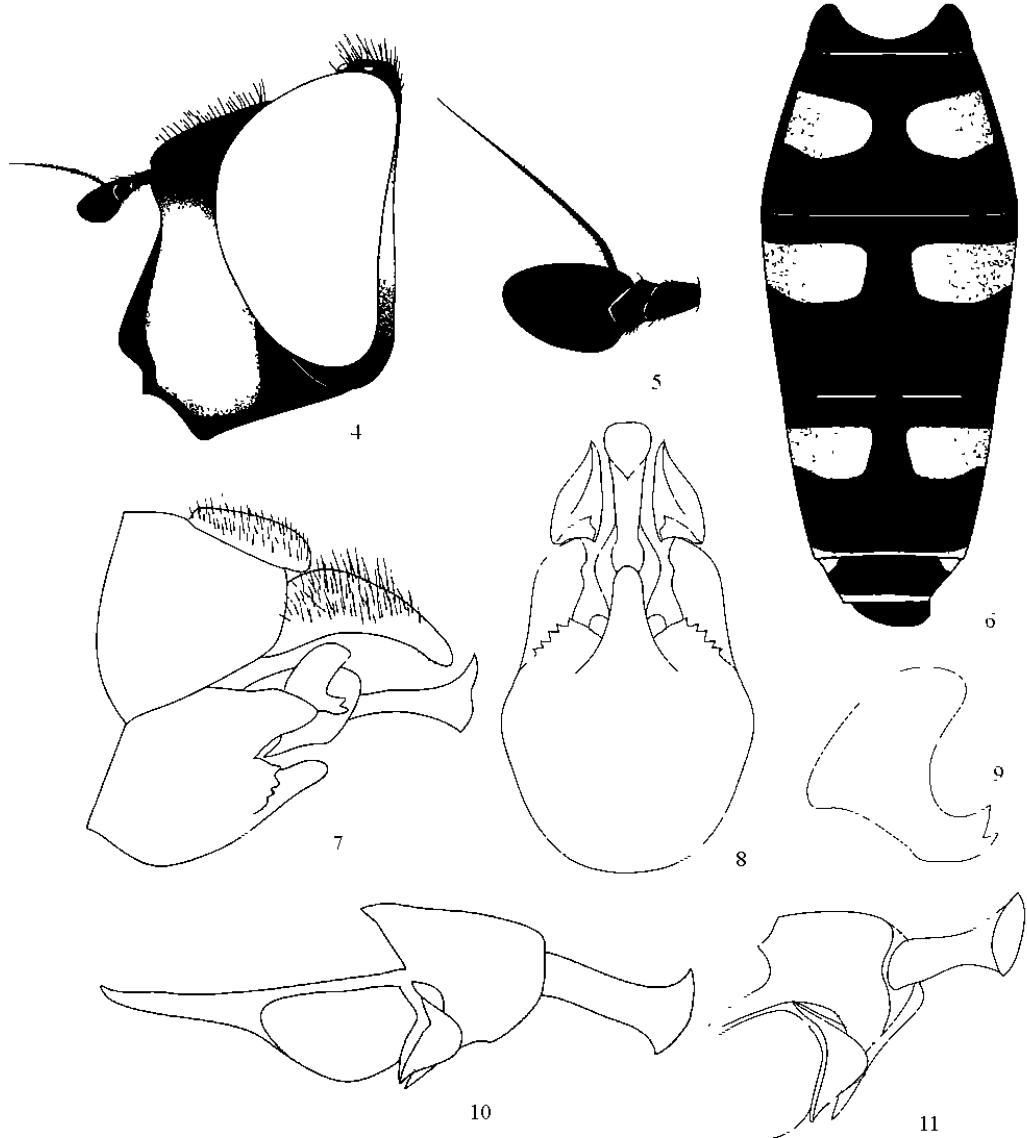
Scutum shining black, tinged with bronze, clothed with brown yellow hairs. Scutellum dark yellow except basal and lateral corners black brown, with long black hairs, subscutellar fringes dark brown, sparse. Mesopleuron shining black, clothed with black brown to brown hairs. Upper and lower hairy patches on katepisternum broadly separated posteriorly. Metasternum bare. Tuft of hairs at posteroventral apical angles of hind coxae absent. Legs black but basal part of fore and middle tibiae tawny and knees of hind legs dark brown. Hairs on legs mostly black except basal part of femur with long light hairs. Wings transparent, clothed with microtrichia entirely. Pterostigma brown. Halter dark brown, but head light yellow.

Abdomen narrowly olivary, unmargined, black with lateral yellow spots on tergites 2-4. Yellow spots on tergite 2 located anteriorly before the middle, not extending to lateral margins of tergite. Spots on tergites 3 and 4 located more forwardly, with anterior margins straight and posterior margins flexual, inner ends separated narrowly, outer ends extended to lateral margins of tergite. Tergites 4 and 5 with extremely narrow, yellow margins posteriorly, and the latter with small yellow spots on anterior corner laterally. Abdomen clothed with hairs in ground color except tergite 1 and tergite 2 basally with long light hairs. Venter black brown to dark brown with yellow spots and bands, covered with light hairs.

**Male genitalia.** More sclerotized black to black brown. Cerci dark yellow with brown hairs. Epandrium black, with straight margin posteriorly. Surstyli black, about as long as epandrium, broadened basally, narrowed gradually towards apical end with apex acuate

circularly, with outer surface clothed long black hairs and inner surface short black setae. Hypandrium about the same as epandrium in depth in lateral view, bulged roundly below lateral arms and lingula, and serrated marginally, posteroventral margin deeply concave laterally, with lateral arms about as long as lingula. Superior lobe sclerotized deeply black, nearly triangular at

apical end in lateral view, posterior corner of basal margin projected backwards, apical end bidenticulate. Distal portion of aedeagus slightly broadened at apical end. Aedeagus base with posteroventral corner acute, anteroventral corner obtuse. Aedeagal apodeme knife shaped, apical end enlarged ventrally in cordiform, basal part slender and acute, compressed ventrally.



Figs 4-11. *Mlangyna qinlingensis* sp. nov. ♂. 4. Head in lateral view. 5. Antenna. 6. Abdomen in dorsal view. 7. Genitalia in lateral view. 8. Hypandrium in ventral view. 9. Superior lobe. 10. Aedeagus. 11. Aedeagal end in posterolateral view.

Female: unknown.

Body length: 39.5 mm. Wing length: 39 mm.

Holotype ♂, 7 July 2002, Taibai Mountain ( $34^{\circ}04'N$ ,  $107^{\circ}45'E$ ; alt. 2800 m), Mei County, Shaanxi Province.

This species is closed to *Mlangyna olsvjai* Violovitsh, differs in the eyes bare, facial median stripe broad, extending to base of antennae, scutellum entirely clothed with long black hairs, legs mostly black, male genitalia different.

**Etymology.** The specific epithet is derived from the type locality Qinling Mountain, Shaanxi Province.

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## 美蓝蚜蝇属二新种记述(双翅目, 蚜蝇科)

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**摘要** 在整理美蓝蚜蝇属标本时发现2新种: 缺纹美蓝蚜蝇 *Melangyna evittata* sp. nov., 秦岭美蓝蚜蝇 *Melangyna qinlingensis* sp. nov., 模式标本保存于陕西理工学院资源生物重点实验室, 文中列出中国已知种的检索表。

**缺纹美蓝蚜蝇, 新种** *Melangyna evittata* sp. nov. (图1~3)

雌性 未知。

♂体长12 mm; 翅长10 mm。

正模 ♂, 2004 05 05, 陕西长安(太兴森林公园), 霍科科采。

本种近似于 *Melangyna olsufjevi* Violovitsh, 但新种颜面暗棕褐色, 缺黑色条纹, 各足胫节棕褐色, 缺亚端暗色环。

新种以颜面暗棕褐色, 缺暗色条纹命名, 取拉丁字 e (x) - (失去) 和 (vittatus) (具条纹的) 构成新种名。

讨论 新种颜面不具暗色条纹, 符合亚属 *Meligramma* 特

**关键词** 双翅目, 食蚜蝇科, 美蓝蚜蝇属, 新种, 中国。

中图分类号 Q969.44

征, 但后足基节后腹端角具毛簇, 与该亚属特征不符; 另一方面, 后足基节后腹端角具黑色毛簇, 符合亚属 *Melangyna* 特征, 但颜面无黑色中条, 与该亚属特征不符。所以其特征介于亚属 *Melangyna* 和 *Meligramma* 之间, 其分类地位还有待进一步研究。

**秦岭美蓝蚜蝇, 新种** *Melangyna qinlingensis* sp. nov. (图4~11)

雌性 未知。

♂体长9.5 mm; 翅长9 mm。

正模 ♂, 2002 07-07, 陕西眉县(太白山), 霍科科采。

本种近似于 *Melangyna olsufjevi* Violovitsh, 但新种复眼裸, 颜面中条伸达触角基部, 宽, 小盾片被毛全黑色, 足主要黑色, 尾器不同。

新种以模式产地命名。